

## Office Action Summary

**Application No.**

10/523,697

**Applicant(s)**

LIN ET AL.

**Examiner**

Nghi H. Ly

**Art Unit**

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-15 is/are rejected.
- 7) ☐ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 02/03/05
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Information Disclosure Statement*

1. The information disclosure statement filed 02/03/07 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Cite No. 3, **CN 1227037** fails to provide a legible copy of cited foreign patent document. It has been placed in the application file, but the information referred to therein has not been considered.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 5, 10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Wright et al (US 6,078,959).

Regarding claim 1, Wright teaches a call access control method (see Title and Abstract), comprising the following steps: (1) counting the number of accessed subscribers in all current communication time slots of the home base station for an access request (see column 1, line 22 to column 2, line 17, column 6, lines 44-54 and

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column 12, lines 3-32), to determine channel resource occupations in different time slots (see column 1, line 22 to column 2, line 17, column 11, lines 29-42 and column 12, lines 18-32), (2) comparing the channel resource occupations in the different time slots (see column 2, lines 20-28, column 8 lines 20-55), and then allocating idle resource units in the time slots having available channel resources and the minimum number of accessed subscribers to the subscriber sending the access request (see column 2, lines 21-47, column 5, line 39 to column 6, line 4, column 6, lines 44-54, column 10, lines 31-48, column 11, lines 29-42, column 12, lines 3-32, column 13, line 65 to column 14, line 45 and column 15, lines 5-54).

Regarding claim 2, Wright teaches the access request in step (1) refers to a access call sent from a new mobile subscriber to the home base station (see column Abstract, fig.1 and column 3, line 13 to column 4, line 42).

Regarding claim 3, Wright teaches the access request in step (1) refers to a switching call sent from a mobile subscriber to adjacent cells (see column Abstract, fig.1 and column 3, line 13 to column 4, line 42).

Regarding claim 5, Wright teaches step (2) comprises: a) comparing channel resource occupations in all uplink time slots, and allocating the idle resource unit in uplink time slots having available channel resource and the minimum number of accessed subscribers to the new subscriber sending the access request as an uplink channel, if the idle resource unit is allocated successfully, going to step b) (see column 2, lines 21-47, column 5, line 39 to column 6, line 4, column 6, lines 44-54, column 10, lines 31-48, column 11, lines 29-42, column 12, lines 3-32, column 13, line 65 to column

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14, line 45 and column 15, lines 5-54), otherwise going to step c), b) comparing channel resource occupations in all downlink time slots, and allocating the idle resource unit in downlink time slots having available channel resources and the minimum number of accessed subscribers to the new subscriber sending the access request as a downlink channel (see column 1, line 22 to column 2, line 17, column 6, lines 44-54 and column 12, lines 3-32, see column 2, lines 20-28, column 8 lines 20-55), c) returning a response signal to the call access request according to the channel resource allocations in the uplink and downlink time slots (see column 2, lines 21-47, column 5, line 39 to column 6, line 4, column 6, lines 44-54, column 10, lines 31-48, column 11, lines 29-42, column 12, lines 3-32, column 13, line 65 to column 14, line 45 and column 15, lines 5-54).

Regarding claim 10, Wright teaches when the channel resources in the uplink and downlink time slot are both allocated successfully (see column 2, lines 21-47, column 5, line 39 to column 6, line 4, column 6, lines 44-54, column 10, lines 31-48, column 11, lines 29-42, column 12, lines 3-32, column 13, line 65 to column 14, line 45 and column 15, lines 5-54), returning a message to the mobile station sending the access request to indicate the succeeded access (see column 2, lines 29-47 and column 6, lines 5-43), otherwise returning a message to the mobile station sending the access request to indicate the failed access (see column 2, lines 29-47 and column 6, lines 5-43).

Regarding claim 11, Wright teaches the channel resources in the uplink and downlink time slots are both allocated successfully (see column 1, line 22 to column 2, line 17, column 6, lines 44-54 and column 12, lines 3-32, see column 2, lines 20-28,

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column 8 lines 20-55), or returning a message to the mobile station sending the cell switching request to indicate the succeeded cell switching (see column 2, lines 29-47 and column 6, lines 5-43), otherwise returning a message to the mobile station sending the cell switching request to indicate the failed cell switching (see column 2, lines 29-47 and column 6, lines 5-43).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 6-9 and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wright et al (US 6,078,959) in view of Mizuhara (US 6,694,348).

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Regarding claim 6, Wright teaches step a) comprises: comparing all counters storing the count value of accessed subscribers in the uplink time slots one by one, and selecting a counter with the minimum count value in the uplink time slots (see column 1, line 22 to column 2, line 17, column 6, lines 44-54 and column 12, lines 3-32, see column 2, lines 20-28, column 8 lines 20-55).

Wright does not specifically disclose comparing the count value in the counter with the threshold of subscribers to be accessed per time slot supported by the base station, if the count value stored in the counter is smaller than the threshold, allocating an idle resource unit in the uplink time slots corresponding to the counter as an uplink channel to the new subscriber sending the access request, otherwise indicating the failed allocation.

Mizuhara teaches comparing the count value in the counter with the threshold of subscribers to be accessed per time slot supported by the base station, if the count value stored in the counter is smaller than the threshold (see column 2, lines 10-21), allocating an idle resource unit in the uplink time slots corresponding to the counter as an uplink channel to the new subscriber sending the access request (see column 2, lines 10-21), otherwise indicating the failed allocation (see column 2, lines 10-21).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Mizuhara into the system of Wright so that allocation of time slots to the respective terminal stations can be more efficiently conducted in the system as a whole (see Mizuhara, column 2, lines 19-21).

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Regarding claim 7, Wright teaches comparing all counters storing the count value of accessed subscribers in the downlink time slots one by one, and selecting a counter with the minimum count value in the downlink time slots (see column 2, lines 21-47, column 5, line 39 to column 6, line 4, column 6, lines 44-54, column 10, lines 31-48, column 11, lines 29-42, column 12, lines 3-32, column 13, line 65 to column 14, line 45 and column 15, lines 5-54).

Wright does not specifically disclose comparing the count value in the counter with the threshold of subscribers to be accessed per time slot supported by the base station, if the count value stored in the counter is smaller than the threshold, allocating an idle resource unit in the downlink time slots corresponding to the counter as a downlink channel to the new subscriber sending the access request, otherwise indicating the failed allocation.

Mizuhara teaches comparing the count value in the counter with the threshold of subscribers to be accessed per time slot supported by the base station (see column 2, lines 10-21), if the count value stored in the counter is smaller than the threshold (see column 2, lines 10-21), allocating an idle resource unit in the downlink time slots corresponding to the counter as a downlink channel to the new subscriber sending the access request, otherwise indicating the failed allocation (see column 2, lines 10-21).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Mizuhara into the system of Wright so that allocation of time slots to the respective terminal stations can be more efficiently conducted in the system as a whole (see Mizuhara, column 2, lines 19-21).

Regarding claim 8, the combination of Wright and Mizuhara further teaches the threshold of subscribers to be accessed per time slot supported by the base station is 6-8, and is determined during initialization (see column 2, lines 10-21).

Regarding claim 9, the combination of Wright and Mizuhara further teaches the threshold of subscribers to be accessed per time slot supported by the base station is 6-8, and is determined during initialization (see Mizuhara, column 2, lines 10-21).

Regarding claim 12, the combination of Wright and Mizuhara further teaches the threshold of subscribers is a maximum number of subscribers (see Mizuhara, column 2, lines 10-21).

Regarding claim 13, the combination of Wright and Mizuhara further teaches the threshold of subscribers is a maximum number of subscribers (see Mizuhara, column 2, lines 10-21).

Regarding claim 14, the combination of Wright and Mizuhara further teaches the threshold of subscribers is a maximum number of subscribers (see Mizuhara, column 2, lines 10-21).

Regarding claim 15, the combination of Wright and Mizuhara further teaches the threshold of subscribers is a maximum number of subscribers (see Mizuhara, column 2, lines 10-21).

***Allowable Subject Matter***

7. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.



Regarding claim 4, Wright teaches claim 1. Wright fails to teach the counting in step (1) comprises: arranging corresponding counters for different time slots respectively, so that the number of counters are equal to the maximum number of time slots for communication that can be supported by the base station, counting accessed subscribers in the time slots, and increasing the corresponding counter by 1 if the current resource unit is occupied, otherwise increasing it by 0.

### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghi H. Ly whose telephone number is (571) 272-7911. The examiner can normally be reached on 9:30am-8:00pm Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on (571) 272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nghi H. Ly

A handwritten signature in black ink, appearing to be 'Nghi H. Ly', written in a cursive style.